

## ACKNOWLEDGEMENTS

I wish to express my sincere thanks to Prof. A. P. Mathew, Professor of Zoology, Mar Ivanios College, Trivandrum, for suggesting this problem and for guidance and constant help and encouragement.

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December 16, 1966.

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## 7. THE HOODED *MALPOLON*, *M. MOILENSIS* (REUSS) AND NOTES ON OTHER SNAKES OF NORTH-EASTERN ARABIA

(With a plate)

Corkill and Cochrane have done students of Arabian fauna a considerable service with the publication of their excellent summary of Peninsular herpetology (*J. Bombay nat. Hist. Soc.* 62: 475-506). I was specially interested in the reference to previous records of *Malpolon's* ability to produce a cobra-like hood and the question as to whether Arabian specimens exhibit this behaviour. On two occasions this year I saw *Malpolon moilensis* (Reuss) erect a hood; the demonstrations were so convincing that both times I was certain that I had finally come upon *Naja* until I had had a look at the mouths of the killed specimens and had counted scales.

My first experience with *Malpolon* was on 11 February 1966, three km. south of the Dhahran Airport in sandy country sprinkled with shrublets of *Zygophyllum coccineum*. The snake, abroad at midday, raised his head more than a foot above the ground at my approach, dilated its neck laterally to a marked degree, and stood its ground. When

I retreated, it moved off with head still somewhat raised. The neck, while expressed as a hood, was strongly compressed dorso-ventrally. This specimen, measured later, was 39 inches long.

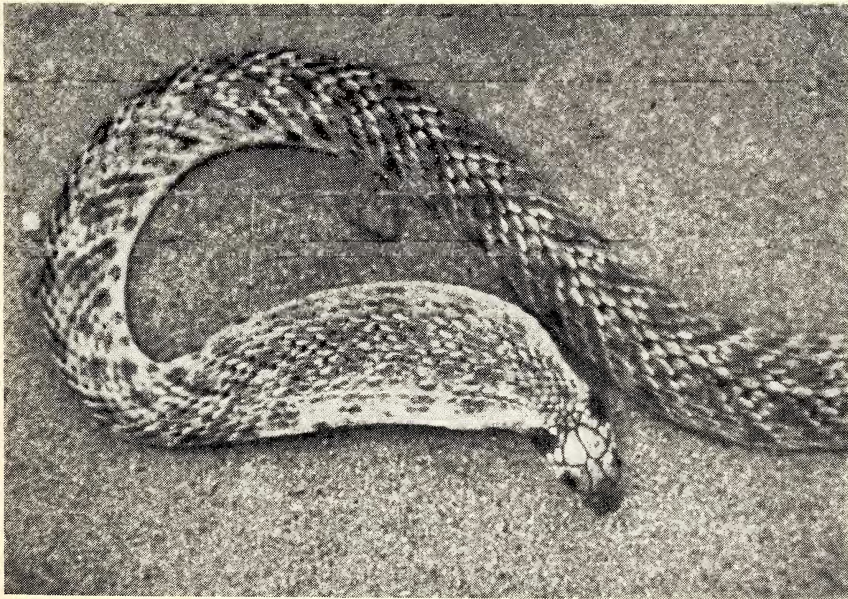
On 6 April 1966 we came across another specimen in the upper reaches of (Wādī) al Bāṭin at Umm 'Ushar, 120 kilometres southwest of the Qaisumah oil pumping station. This individual, also moving at midday, displayed an impressive hood and, in an effort to escape, climbed up into the engine compartment of our car from beneath. The heat soon drove it out, relieving us of the somewhat embarrassing situation of having what we then believed to be a cobra in our only vehicle. This individual was 33 inches long. *Scale count*: scale rows 17; ventrals 171; subcaudals 58.

One live specimen of *M. moilensis* is now being kept by the preventive medicine unit of the Arabian American Oil Company at Dhahran. One specimen kept earlier had, in addition to the usual oblique elliptical dark mark on the neck, a second, lighter mark anterior to the main one. The Plate shows hooding behaviour in one of these individuals.

After observing *Malpolon* in the field and in captivity, I have no doubt that most, if not all, reports of *Naja* in north-eastern Arabia are based on sightings of this Colubrid. I know of no authenticated specimens of *Naja* from this area, and collection records presented by Corkill & Cochrane indicate that the distribution of *Naja* is confined to the more moist tropical parts of the Peninsula and contiguous mountain areas. I would expect that if *Naja* is to be found at all in the northeast, it will likely be in or near oasis districts.

One is tempted to view this behaviour by *Malpolon* as a case of protective behavioural mimicry, but there are serious theoretical objections. Considering it a case of classical Batesian mimicry, one must assume first of all that the hooding of *Naja* is a warning action that can be "learned" by its natural enemies. It seems, however, that these enemies, whatever they are, could hardly learn from an experience that would probably prove either fatal or entirely successful. It would also have to be demonstrated that the ranges of *Naja* and *Malpolon* do or did overlap.

To speculate further, the snakes' behaviour might be of value in conjunction with an instinctive, not learned, reaction on the part of its enemies or prey. Assume, for example, that the typical cobra attitude is not only defensive, but is effective in terrorizing its prey into immobility. A *Malpolon* could scarcely learn these tactics from a *Naja*, but may have evolved them in parallel fashion or inherited them from a common source. The behavioural pattern in both species may be only one of those evolutionary accidents for which no survival value can be demonstrated.



*Malpolon m. moilensis*

*Above:* Live captive specimen of *Malpolon moilensis* (Reuss) with neck slightly dilated anteriorly; when completely at rest, no expansion was visible. *Below:* The same specimen, with neck almost fully dilated after gentle teasing. When more vigorously threatened, the snake hid its head beneath its coils, and the neck reverted to its normal condition. This individual, being enclosed and threatened from above, would not raise its head in the typical cobra attitude.

(Photos: B. H. Moody)

